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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/749,898	12/31/2003	Paul J. Buras	API-1022-COS-921	8912
25264	7590	12/27/2007		
FINA TECHNOLOGY INC PO BOX 674412 HOUSTON, TX 77267-4412			EXAMINER BRUNSMAN, DAVID M	
			ART UNIT	PAPER NUMBER
			1793	
			MAIL DATE	DELIVERY MODE
			12/27/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	Application No. 10/749,898	Applicant(s) BURAS ET AL.	
	Examiner David M. Brunsman	Art Unit 1755	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,7,9-12,15-17,22,23,27,28,30-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,7,9-12,15-17,22,23,27,28 and 30-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) <input type="checkbox"/> Notice of Informal Patent Application
6) <input type="checkbox"/> Other: _____. |
|---|--|

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 October 2007 has been entered.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 10, 27 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no antecedent basis in the application as originally filed for 0.86 wt.% ZnO.

Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 recites the same crosslinkers as claim 1.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 7, 9, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6767939.

The instant claims are construed in examination consistent with their broadest reasonable interpretation. For example, the preamble recitation of "a method for reducing hydrogen sulfide

emissions" is a statement of intent and claims thereto are anticipated by any teaching of the same process steps whether or not the prior art intended to reduce H₂S emission solely or in part or even recognized the possibility thereof. A process part of the public domain may not be captured as an exclusive right simply by the recognition of an unrealized advantage thereto. The prior art cited is representative of a large body of prior art disclosing the addition of materials such as zinc oxide to asphalt compositions.

The reference teaches a method of making an asphalt composition useful to be combined with aggregate for paving roads comprising combining asphalt, a styrene butadiene polymer modifier, MBT, zinc oxide and elemental sulfur at a temperature sufficient to allow stirring (indistinguishable from the lowest temperature for effective pumping). While the zinc oxide is intended as a crosslinking promoter it is present in amounts which anticipate the ranges of the instant claims. See Table 5 (disclosing ingredients in amounts anticipating the instant claims) and the patented claims. The reduction in hydrogen sulfide emissions and iron pyrite formation, as the zinc oxide is present in amounts taught by the instant invention, would be expected to necessarily result therefrom. The examples therein further disclose a method of compatibility testing wherein the combined asphalt heated cast into cylindrical molds removed and cut into multiple pieces.

The difference between the instant claims and the examples of the patent is the use of MBT as a crosslinking agent in the reference while the instant claims require one of dithiocarbamates, alkyl polysulfides and ester polysulfides. Paragraph [0031] of the instant specification admits that MBT and dithiocarbamates are known as conventional crosslinking agent for asphalt compositions. It would have been obvious to one of ordinary skill in the art to at least partially substitute a dithiocarbamate for the MBT of the reference because they are known to function equivalently.

Claims 10-12, 15-17, 22, 23, 27, 28, 31, 32 and 34-37 are not rejected over US 6767939 as the reference does not teach or suggest on its own the use of greater than 0.86% ZnO. Amendment of the claims to remove the new matter added may require a new rejection to be made.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 10-12, 15-17, 22, 31, 32, 34 and 36-38 are rejected under 35 U.S.C. 102(b) as being anticipated by US 5104916.

Column 4, lines 6-43 of the patent teach a method of forming an asphalt for use with aggregate in paving roads comprising mixing asphalt (at about 150 C, indistinguishable from 280 F, since "lower temperature would require considerable mixing energy) with a styrene butadiene polymer modifier and 0.1-2% of a vulcanization composition comprising, for example, 1 part tetramethylthiuram disulfide, 5 parts zinc oxide, 3 parts stearic acid and 1 part antioxidant. Calculated as, 0.03-1% ZnO and 0.05-1.4% vulcanization composition less ZnO. The reduction in hydrogen sulfide emissions and iron pyrite formation, as the zinc oxide is present in amounts taught by the instant invention, would be expected to necessarily result therefrom.

Applicant's calculation of a maximum amount of ZnO as 0.86% is disputed. There is no teaching in the prior art reference that the maximum amount of ZnO (5 parts) only applies when the maximum amounts of other materials are used (for a total of 23 parts). While the patent allows for greater proportions of ZnO, the examiner most reasonably relies upon the preferred embodiment described at Column 2, lines 41-44 teaches 5 parts ZnO of a total 10 parts indicating 1% ZnO when the polymer modifier is added at 10%. Furthermore, the lower limit of the term "greater than 0.86%" is not materially different from a content of 0.86%. As set forth above, a claim including a statement of intended use is anticipated by any teaching of the same process steps whether or not the prior art intended to

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 4, 7, 9, 30 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6104916, as applied above.

The difference between these claims and the prior patent is the use of the thiurams crosslinker in the patent while the instant claims require one of dithiocarbamates, alkyl polysulfides and ester polysulfides. Paragraph [0031] of the instant specification admits that thiurams and dithiocarbamates are known as conventional crosslinking agent for asphalt compositions. It would have been obvious to one of ordinary skill in the art to at least partially substitute a dithiocarbamate for the thiuram of the reference because they are known to function equivalently.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6767939, as applied above.

The use of asphalt compositions is admitted to be prior art in the instant specification. The difference between that use and the instant claims is the composition of the asphalt employed. US 6767939 teach that the compositions therein including zinc oxide exhibit better high temperature performance than untreated asphalt. It would have been obvious to one of ordinary skill in the art to employ the asphalt composition of 6767939 in a process of coating roofs because one of ordinary skill in the art would expect better high temperature performance.

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5104916, as applied above.

The use of asphalt compositions is admitted to be prior art in the instant specification. The difference between that use and the instant claims is the composition of the asphalt employed. US 5104916 teach that the compositions therein including zinc oxide exhibit better high temperature performance than untreated asphalt. It would have been obvious to one of ordinary skill in the art to employ the asphalt composition of 6767939 in a process of coating roofs because one of ordinary skill in the art would expect better high temperature performance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Brunsman whose telephone number is 571-272-1365. The examiner can normally be reached on M, Th, F, Sa; 7:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on 571-272-1233. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

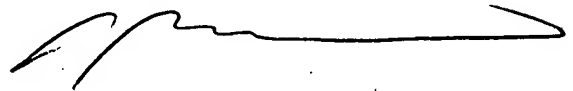
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David M Brunsman
Primary Examiner
Art Unit 1755

DMB

A handwritten signature in dark ink, appearing to read 'David M Brunsman', with a long horizontal flourish extending to the right.